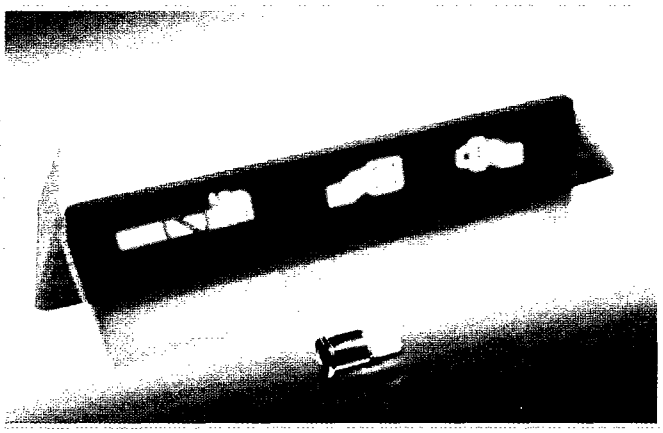
Without smoke, belting up a market

The Federal Aviation Administration (FAA) has granted parts manufacturer approval (PMA) status to LEDtronics for their BSD-1884-0CW LED lamp as a direct replacement for the GE387 incandescent lamp. This PMA covers all models of the DC-9 commercial aircraft, with approvals pending for Boeing 737, 747, 767, MD11 and MD10 aircraft.

The FAA requires products to be approved prior to use in commercial aircraft. Approval is in accordance with provisions of 14CFR part 21 Subpart K. Additionally, the FAA has determined that the fabrication inspection system established by LEDtronics at 23105 Kashiwa Court, Torrance, California 90505 meets the specifications as required and has, therefore, granted approval for manufacture of BSD-1884-0CW for all DC-9 models.

This bulb-type is employed in No Smoking/Fasten Seatbelt signage as well as other indicators such as those marking lavatory locations and emergency exits. No modifications are required to existing holders and fixtures as the envelope dimensions of the BSD-1884-0CS are consistent with the GE38 bulb. The LEDtronics product offers several advantages over older lamps. They use up to four times less power, operate at a lower working temperature (23C/40F) and carry a 5-year guarantee as opposed to 7,000-hour life for the GE387 bulb.



The BSD-1884-OCW LED lamp

Technology: Optoelectronics

Alcatel has finalised the sale and 12 year lease back of its headquarters in Paris, France and the sale of its production plant in Hoboken, Belgium to Scanfil Oyj. These transactions follow the sale and lease back of its headquarters in Madrid, Spain to Colony Capital group, an US syndicator of real estate funds.

The first colour displays based on phosphorescent organic LED's will be available in early summer, according to JaniceMahon, VP technology commercialisation of Universal Display Corporation in Ewing, New Jersey.

Engineers at Oregon State University have created the world's first transparent n-type transistor, a that could open the way to new products.

Essient's EAM reach extends

Essient, the Scottish supplier of integrated indium phosphide optoelectronic components for modulation and detection in 10Gb/s systems formed in 2002 claims its electro-absorption modulator (EAM) technology can support <40km transmission, within the constraints of the XFP specification. Its EAM technology enables XFP Level 2 power of 2.5W to be achieved. Competing technologies currently consume 4.5W, it claims. Further, it uses fractional board space to provide functionality and significantly extend transmission distance. The ultra-low-power 10Gbit/s EAM-10G, Essient's first product, will field trial in Q1/2004.

Ultra-low-power 1550nm intermediate reach (IR) modules are not available on the market because technologies fail to meet the power and size constraints of XFP, a multi-source specification. Compared to contemporary designs, Essient's product allows overall module power characteristics to be reduced by <70% and size to be reduced by <35%, enabling support of 1550nm IR solutions within an XFP package.

Essient claims to provide the benefits promised by the XFP specification while circumventing the drawbacks faced by lesser technologies. "Without the critical combination of reduced size and low power, other technologies hit the wall before 40km," said CEO Ken Jones. "Our approach will open up longer transmission and reduced power levels, providing greater cost efficiencies."

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InGaAs photodiode arrays

Sensors Unlimited has launched the SU1024LE, the first 1024 element linear InGaAs photodiode array for spectroscopic applications confirming Sensors Unlimited's intention to renew its R&D efforts in military and industrial spetroscopy markets.

"Sensors Unlimited continues to lead the optoelectronics world in InGaAs detector and imaging products," says Marshall Cohen, president of Sensors Unlimited. "As with all our products, the SU1024LE is processed using wafers up to 4 inches in diameter, a manufacturing capability pioneered by Sensors Unlimited that results in high yield and rapid delivery."

An extended 1024 element array, twice as long the SU512LD, the 1024LE features photodiodes on a 25micron pitch and a readout integrated circuit with anti-blooming capability.

The ROIC was designed by Sensors Unlimited to include anti-blooming for extended intra-scenic dynamic range. The array is pin compatible with previous linear arrays for upgrading.

It builds upon Sensor Unlimited's previous leading arrays, including the 256LX-series and 512LD-series devices used for spectroscopy, machine vision and optical network monitoring applications.